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U.S. Patent Application Serial No. 09/594,100
Attorney Docket No. 99-422

REMARKS

This amendment is responsive to the Office Action of March 30, 2004. A petition for extension of time of one month accompanies this paper. Claims 1-32 were presented for examination and were rejected under 35 U.S.C. § 102(e) as being anticipated by Short et al. (U.S. Patent No. 6,130,892). Claims 1, 11, 16, 21, 26, 31, and 32 are independent claims and all have been amended. All amendments are supported by the application as filed; no new matter is added. New claim 33 has been added to cover the return communication from the server back to the client, as mentioned in the specification (page 15, lines 24-31). No claims have been canceled. Claims 1-33 remain pending. The rejection is respectfully traversed for the following reasons.

First, consider the different purpose of Short et al. as compared with the purpose expressed in Applicant's disclosure. Short et al. is directed to a portable "Nomadic" translator or router which enables a client's laptop computer or other portable terminal which is configured to be connected to a local home network, to be connected to any location on the Internet or other digital data communication system. The translator/router is located between the terminal and, for example, the Internet. The translator/router replaces the terminal's permanent address with its own address in the outgoing data (i.e., it replaces the source address). Thus any network node receiving that data/message and replying would send a return message back to the received source address, i.e., to the translator/router address. The translator/router translates the return message by replacing the translator/router address with the terminal's permanent address as the destination address for the return message. This is the only translation discussed in Short et al,

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namely, a singular translator/router translating the client terminal's permanent source address to the router's address on outgoing data from the client/host, and a reverse-translation of the translator/router's address to the terminal's permanent source address on incoming data being returned from the network. Thus, the entire purpose of Short is to accommodate portability of a computer, such as a laptop, without requiring reconfiguration for each network it plugs into. (Short et al., column 1, line 49 to column 2, line 19). It thus has nothing to do with mapping addresses in a network to confound network discovery.

By contrast, the purpose of Applicant's disclosure relates primarily to secure transmissions -- to mapping addresses in a network to confound network discovery. For example, hackers may attempt to infiltrate a company's internal network using packet sniffers which are mechanisms that capture all traffic transmitted to and from, for example, the company's server. The hacker may use the illegally-obtained information to map the company's network, including identifying the company's network topology by observing address and ports being used in data packets transmitted to and from the server, and then use that topology information to access company confidential information or maliciously attack the company's network. (application, page 1). Applicant's claimed subject matter offers a solution to this security problem. The security purpose of Applicant's invention has nothing to do with the client-terminal portability purpose of Short et al.

In order for Short et al. to accomplish its purpose it needs only one translator, and that is what it discloses. In its Fig. 1, it shows singular nomadic router 10 (translator), shown in expanded format in its Fig. 2. Short et al. discusses only a singular translator

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throughout its disclosure, since that is all it needs to accomplish its purpose. It does not contemplate multiple translators communicating directly (via a network) with each other in the manner used by Applicant to enable a client and server to talk to each other without unauthorized network discovery, since that has nothing to do with Short et al's purpose or function. (The fixed nomadic router and portable nomadic router discussion in column 16, lines 30 – 38 of Short et al. is not relevant here, as they are both functioning to serve the same host and not a separate client and server – the fixed nomadic router is a surrogate or "home agent" for the user when he is away on travel.)

By contrast, in order for Applicant to accomplish its purpose, it needs at least two translators in communication with each other, in order to manipulate both source and destination addresses for purposes of confounding network discovery. For example, consider the scenario where a client intends to send a message to its server. In order to hide the client's true address and the server's true address, a client-side translator substitutes its own address as the source address of the client and changes the destination address of the server to the address of the server-side translator. The message is then sent from the client-side translator to, and received by, the server-side translator, possibly over the Internet. The server-side translator substitutes the true server address for its address and forwards the message to the server. See Applicant's Fig. 1 where, for example, client 110 sends a message via network 130 to client side address translator 120, and from there via Internet 160 to server-side address translator 140, and from there via network 170 to server 150. The reverse procedure is followed when the server replies to the client (application, page 15, lines 24-27). In this manner, only the client side and server side translator addresses are exposed to potential hackers over the Internet or other network

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connection. This cannot be accomplished with only one translator as shown in Short et

al. With this background and explanation in mind, consider the amended claims.

Amended claim 1, for example, recites, inter alia:

“receiving in a first address translator a data packet from a client, the data packet including a first destination address;

changing the first destination address to a second destination address in the first address translator;

transmitting the data packet with the second destination address from the first address translator via the network;

receiving in a second address translator the data packet transmitted via the network;

translating the second destination address back to the first destination address in the second address translator; and

forwarding the data packet from the second address translator to the server using the first destination address”.

It is thus clear from the transmitting step that the server's address, the first destination address, has been hidden during transmission through the network; it is also clear that the client's address is hidden since the transmission takes place from the first address translator and not from the client directly. Note that two different address translators are claimed in claim 1. In Applicant's Fig. 1 two address translators 120 and 140 are shown which are described in Applicant's specification. It is clear that Short et al does not disclose or suggest the subject matter recited in claim 1, at least for the reason that Short et al does not disclose or suggest any more than usage of a singular address translator, which is all that is needed to accomplish its purpose. Short et al. certainly does not teach two separate address translators in direct communication (via a network) to accomplish the results achieved by Applicant's claim 1.

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MPEP 2131 indicates that to anticipate a claim, the reference must teach every element of the claim. In this case, Short et al. does not teach each and every element of claim 1. Short et al. does not teach the use of two address translators, much less in the manner described in the specification and claimed in claim 1. Specifically, Short et al does not teach: (1) changing the first *destination* address to a second *destination* address in the first address translator (it changes only the source address); (2) transmitting the data packet with the second *destination* address from the first address translator via the network (it does not change the destination address); (3) receiving in a second address translator the data packet transmitted via the network (there is no second address translator); (4) translating the second destination address back to the first destination address in the second address translator (there is no second address translator); and (5) forwarding the data packet from the second address translator to the server using the first destination address (there is no second address translator). At best, Short et al. teaches the changing of the Client's source address in its translator to the translator's address as a proxy source address, and does not even hint at changing destination addresses.

Accordingly, the 35 U.S.C. § 102(e) rejection of claim 1 should be withdrawn.

Furthermore, a 35 U.S.C. § 103(a) rejection would also be improper since Short et al. also does not *suggest* the subject matter of claim 1 for many reasons including that it has absolutely no need for two translators.

The other independent claims, namely claims 11, 16, 21, 26, 31, and 32 have been amended in the same or similar fashion to clearly indicate two separate address translators (and as noted in Applicant's specification, the translators can be hardware, software or a combination of each and can also be located separately from or included

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within the host or server with which it is functioning). Accordingly the 35 U.S.C. § 102(e) rejection of these other independent claims should also be withdrawn. Since claims 2-10, 12-15, 17-20, 22-25, 27-30, and new claim 33 depend from these independent claims, the 35 U.S.C. § 102(e) rejection of these dependent claims should also be withdrawn, at least by virtue of their dependency status.

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CONCLUSION

In view of the foregoing amendments and remarks, Applicant deems all amended claims and new claim 33 allowable, and respectfully requests the Examiner's reconsideration of this application, and the timely allowance of all pending claims. To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 07-2347 and please credit any excess fees to such deposit account.

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